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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,342	03/10/2004	Akiko Hirao	08411.0002	2005
22852 7590 07/12/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			EXAMINER PSITOS, ARISTOTELIS M	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 07/12/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/796,342

Applicant(s)

HIRAO ET AL.

Examiner

Aristotelis M. Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ~
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicants' response of 5/9/07 has been considered with the following results.

#### ***Information Disclosure Statement***

The IDS documents filed with the application, 9/23/04 and 10/7/04 have been reviewed. The examiner cannot understand the citations found on the documents dated 9/23/04 and 10/7/04 since they in themselves are not prior art. Nevertheless if applicants' desire to have these documents "printed" on the face of any patent issued from this application, confirmation of such is respectfully requested.

#### ***Claim Objections***

In particular, claims 13 and 14 are substantially duplicative of each other. These claims are drawn to a "recording method", and the steps of the method are not distinguishable from each other. The examiner recommends including a step of selecting a recording medium and defining the recording medium as established by claims 13 and 14 as a positive step in order to avoid such a problem.

#### ***Specification***

The amended title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Since the disclosed invention is drawn to a **holographic** system/record the examiner strongly recommends inclusion of such a term in the title.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 2,3 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular the newly introduced phraseology/limitation(s) in

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- a) claim 2, " ... wherein the decrease of the optical density of the recording layer is continuous.";
- b) claim 3, " ... wherein the decrease of the optical density of the recording layer is step-by-step.";
- c) claim 9, " ... the recording layer includes a high optical density layer and a low optical density layer corresponding to the signal light, and the high optical density layer is arranged on the incident side relative to the low optical density layer;" are not readily found/contained in the specification as originally filed. Applicants' cooperation in explaining such is respectfully required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 2,3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, these claims attempt to further define the optical density of the recording medium; however, **how such limitations** arise from the parent claim is not clear. Stated differently, these claims recite desired results, and as such either are a result of the elements positively recited in the parent claim, or are attributed to, a function of unclaimed limitation(s), such as the specific holographic material. Further clarification is respectfully required.

Again, the examiner interprets the optical density limitations to be a desired result that must inherent flow/follow from the structure claimed in all following rejections, else these limitations are a result of non-recited specifics. The examiner cannot interject/drawn into the claims, structure from the disclosure.

***Response to Arguments***

Applicant's arguments filed 5/9/07 have been fully considered but they are not persuasive. Again, as interpreted by the examiner these desired results are a result of the selected material for the holographic recording layer and as such, a source of such material needs to be included in the claims.

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As far as the claims recite positive limitations and as interpreted by the examiner, the following rejections are made.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Horimai et al (cited prior art by applicants'), or alternatively WO99/44195 (this document is not being provided rather its US equivalent document 7130092) and either further considered with Moerner et al.

As noted in Horimai et al, with respect to the description of figure 27, a holographic record medium having the structural components as recited is depicted.

Alternatively the WO document – see figures 41+ in the corresponding US equivalent document also depicts such a structural record medium.

Although not specified as to what the holographic material is, the reference to Moerner et al discloses the ability/ use of appropriate materials for optical (holographic) records.

It would have been obvious to modify the base system of Horimai et al with the above teachings from Moerner et al, motivation is to use existing materials as the recording layer in Horimai et al for their desired properties

With respect to the limitations as recited in claim 1:

a) lines 6-8 , such are inherent present, i.e., **when a hologram is recorded** such limitations are present in the above combination of references.

b) lines 10-12, the optical density appropriately decreases. The examiner interprets this as a desired inherent result of the recording structure as defined by the claims. And as such structure has been met by the above combination of references, must be present as well.

Since claim 8 is substantially a duplicate of claim 1, it is also met for the reasons stated above.

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With respect to claim 4, such is merely a mathematical expression defining the optical density in relationship to various system parameters. These system parameters, i.e., optical density of the surface, refractive index of the recording layer, numerical aperture of a lens, spot size radius, and distance from the light incident surface MUST exist. Hence, the description merely describes what is already present.

With respect to claim 5, the appropriate groove structure is present in the above combined references. With respect to the remaining limitations of claim 5, they have been addressed with respect to claim 4.

With respect to claims 6 and 7, such limitations are inherently present.

Claim 9, is met – see the discussion above with respect to claim 1.

The method limitations of claims 13 and 14 are met when the above record medium is recorded upon since appropriate elements, such a light sources, lens, etc. much be present in order to achieve the desired recording of information upon the record medium.

### ***Response to Arguments***

Applicant's arguments filed 5/9/07 have been fully considered but they are not persuasive.

The Horimai et al patent, 5917798, is **indeed** the reference cited by applicants and relied upon in the previous and this OA.

With respect to the newly introduced phrase/limitation :

a) “ ... a region in the recording layer, in which the hologram is recorded, is conical” as now found in

independent claims 1, 8, 9, 13 and 14, the examiner interprets such a limitation to describe the interaction with the incident light beam and the recording layer – the description of figure 2 of the pending application. The examiner concludes that such is also/inherently present in the base reference to Horimai et al.

b) With respect to claim 2, such decrease in optical density as interpreted by the examiner is also present in the above base reference, since as best understood such is the interaction between the light impinging upon the recording layer/mater, else such a desired result occurs from limitations not found in the claim.

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c) With respect to claim 3, since such a phrase is **indeed descriptive** of the interaction of the light impinging upon the recording layer in applicants' disclosure, then such is also inherently present in the base reference, else such a desired result occurs from limitations not found in the claim.

d) With respect to claim 8, since the uniformity of the remaining recording layer is derived from the interaction of the light beam impinging upon the record material such inherently follows from the base reference, else such a desired result occurs from limitations not found in the claim.

The remaining claims fall accordingly.

### ***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thru: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
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A handwritten signature in black ink, consisting of a series of loops and a long vertical stroke at the bottom.

AMP